Appendix C:

Applicants' Earliest Constructive Reduction to Practice of An Embodiment Within The Scope of The Proposed Count

Claims Added (recited in proposed Count)	Disclosure in 08/255,682
159. An apparatus for simultaneously conducting multiple chemical reactions comprising:	"The present inventions relate to the fabrication and placement of materials at known locations on a substrate." P. 1, ll. 10-11. "In particular, the method comprises the steps of first forming a plurality of probe arrays on a substrate and separating the substrate into a plurality of chips. Typically, each chip contains at least one probe array. A chip is then mated to a package having a reaction chamber with fluid inlets. When mated, the probe array is in fluid communication with the reaction chamber." P. 3, ll. 2-10. "In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format. In some embodiments, a chip is mounted individually to each cavity according to the methods described above. Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities. Accordingly, separating the wafer is not necessary before attaching the probe arrays to the package. This format provides significant increased throughput by enabling parallel testing of a plurality of samples." P. 25, ll. 29-38.
a plate having a plurality of wells spatially arranged in a surface of the plate in a well array pattern, each well having a side wall adjacent to a closed end that enclose the well except for an open end that is opposite the closed end and that is adjacent to the plate surface, the plurality of wells for receiving a test sample via the open end;	"In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format. In some embodiments, a chip is mounted individually to each cavity according to the methods described above. Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities. Accordingly, separating the wafer is not necessary before attaching the probe arrays to the package. This format provides significant increased throughput by enabling parallel testing of a plurality of samples." P. 25, ll. 29-38.
an array of sets of chemical reactants, the sets of chemical reactants being bound to and spatially arranged on a surface of an array substrate in an array pattern of features,	"Methods and devices for packaging a substrate having an array of probes fabricated on its surface are disclosed." P. 2, ll. 21-22. "According to one aspect of the techniques described therein, a plurality of probe arrays are immobilized at known locations on a large substrate or wafer. FIG. 1a illustrates a wafer 100

Claims Added (recited in proposed Count)	Disclosure in 08/255,682
	on which numerous probe arrays 110 are fabricated." P. 6, ll. 30-35.
the well array pattern being spatially similar to the feature array pattern,	"The cavities, for example, may be in a 96-well micro-titre format...Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities." P. 25, ll. 30-35.
wherein the array surface faces the plate surface and covers the open ends of the wells to form closed cells, each closed cell comprising a respective test sample and a respective set of the chemical reactants; and	"In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format. In some embodiments, a chip is mounted individually to each cavity according to the methods described above. Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities. Accordingly, separating the wafer is not necessary before attaching the probe arrays to the package. This format provides significant increased throughput by enabling parallel testing of a plurality of samples." P. 25, ll. 29-38. "In particular, one embodiment of the invention provides a method and associated apparatus for packaging a substrate having diverse sequences at known locations on its surface." P.1, ll. 12-14. "A probe is a surface-immobilized molecule..." P.5, line 23.
a seal between the plate and the array that is one or more of gas tight, liquid tight, and fluid tight.	"Optionally, a gasket or a seal 2070 is located between the ledge and chip to ensure a tight seal around cavity 310." P. 22, ll. 29-30. "In some embodiments, a gasket or seal 2270 is placed at the bottom of the notch to ensure a tight seal when the chip is attached. Once the chip is located at the notch, a V-shaped wedge 2260 is inserted into channel 2250. The wedge forces the body to press against chip's edges and seal 2260, thus mating the chip to the package." P. 23, ll. 12-18 "FIG. 23 shows an alternative embodiment of package that employs check valves to seal the inlets. As shown, depressions 2305 and 2315 communicate with cavity 310 through inlets 350 and 360... To introduce a fluid into the cavity, a needle is inserted into the check valve. When the needle is removed, the check valve reseals itself to prevent leakage of the fluid." P. 25, ll. 22-27 "FIG. 24 illustrates another package that uses reusable tape for

Claims Added (recited in proposed Count)	Disclosure in 08/255,682
	sealing the cavity 310... The mid section 2420 of the tape is comprised of non-permanent adhesive. This design allows inlets to be conveniently sealed or unsealed without completely separating the tape from the package." P. 23, ll. 35 through P. 24, ll. 4. "FIG. 26a illustrates a package utilizing sliding seals for retaining fluids within the cavity. The seals are positioned in slots 2610 that are located above the inlets... The inlet is sealed or unsealed by positioning the seal appropriately along the slot. Alternatively, spring loaded balls, rotary ball valves, plug valves, or other fluid retention techniques may be employed." P. 24, ll. 13-26.
163. A kit for simultaneously conducting multiple different assays of biological materials comprising:	"In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format. In some embodiments, a chip is mounted individually to each cavity according to the methods described above. Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities. Accordingly, separating the wafer is not necessary before attaching the probe arrays to the package. This format provides significant increased throughput by enabling parallel testing of a plurality of samples." P. 25, ll. 29-38.
an array having a plurality of sets of chemical reactants spatially arranged on an may [sic array] substrate; and	"Methods and devices for packaging a substrate having an array of probes fabricated on its surface are disclosed." P. 2, ll. 21-22. "A target is a molecule that has an affinity for a given probe and is sometimes referred to as a receptor." P. 5, ll. 36-38. "A probe is a surface-immobilized molecule that is recognized by a particular target and is sometimes referred to as a ligand." P. 5, ll. 23-25. "In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format... Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities." P. 25, ll. 29-35.
a plate having a plurality of spatially arranged wells in the plate, the wells being closed at one end and open at an opposite end for receiving a sample under test,	"In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format... Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities." P. 25, ll. 29-35.

Claims Added (recited in proposed Count)	Disclosure in 08/255,682
wherein the array and the plate form a multiple closed cell reaction assembly when the array is assembled to the plate, such that the array covers the open ends of the wells to form closed cells, each closed cell comprising the test sample and a respective set of the chemical reactants,	"In an alternative embodiment, the body is configured with a plurality of cavities. The cavities, for example, may be in a 96-well micro-titre format. In some embodiments, a chip is mounted individually to each cavity according to the methods described above. Alternatively, the probe arrays may be formed on the wafer in a format matching that of the cavities. Accordingly, separating the wafer is not necessary before attaching the probe arrays to the package. This format provides significant increased throughput by enabling parallel testing of a plurality of samples." P. 25, ll. 29-38. "Methods and devices for packaging a substrate having an array of probes fabricated on its surface are disclosed." P. 2, ll. 21-22. "A target is a molecule that has an affinity for a given probe and is sometimes referred to as a receptor." P. 6, ll. 36-37. "A probe is a surface-immobilized molecule that is recognized by a particular target and is sometimes referred to as a ligand." P. 5, ll. 23-25.
the reaction assembly comprising a seal between the plate and the array that is one or more of gas tight, liquid tight, and fluid tight when assembled.	"Optionally, a gasket or a seal 2070 is located between the ledge and chip to ensure a tight seal around cavity 310." P. 22, ll. 29-30. "In some embodiments, a gasket or seal 2270 is placed at the bottom of the notch to ensure a tight seal when the chip is attached. Once the chip is located at the notch, a V-shaped wedge 2260 is inserted into channel 2250. The wedge forces the body to press against chip's edges and seal 2260, thus mating the chip to the package." P. 23, ll. 12-18 "FIG. 23 shows an alternative embodiment of package that employs check valves to seal the inlets. As shown, depressions 2305 and 2315 communicate with cavity 310 through inlets 350 and 360... To introduce a fluid into the cavity, a needle is inserted into the check valve. When the needle is removed, the check valve reseals itself to prevent leakage of the fluid." P. 25, ll. 22-27 "FIG. 24 illustrates another package that uses reusable tape for

Claims Added (recited in proposed Count)	Disclosure in 08/255,682
	sealing the cavity 310... The mid section 2420 of the tape is comprised of non-permanent adhesive. This design allows inlets to be conveniently sealed or unsealed without completely separating the tape from the package." P. 23, ll. 35 through P. 24, ll. 4. "FIG. 26a illustrates a package utilizing sliding seals for retaining fluids within the cavity. The seals are positioned in slots 2610 that are located above the inlets... The inlet is sealed or unsealed by positioning the seal appropriately along the slot. Alternatively, spring loaded balls, rotary ball valves, plug valves, or other fluid retention techniques may be employed." P. 24, ll. 13-26.